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**SLIATE**

**SRI LANKA INSTITUTE OF ADVANCED TECHNOLOGICAL EDUCATION**

(Established in the Ministry of Higher Education, vide in Act No. 29 of 1995)

**Higher National Diploma in Information Technology**

**First Year, First Semester Examination – 2016**

**HNDIT1102 / IT1001- Computer Hardware / Personal Computer Hardware & System Operation**

Instructions for Candidates:

**Answer Four (04) question only**

No. of questions : 05

No. of pages : 03

Time : **02 Hours**

**Q1)**

- I. One component of a computer system is "Livewire". What are the other main components of a computer system? (02 mark)
- II. What is meant by **file extension**? Write four (04) extensions used in windows environment. (03 mark)
- III. Explain the differences between **volatile** and **non-volatile** memories. (04 mark)
- IV. Classify the computers according to **computational method** and explain each of them in brief. (06 mark)
- V. What is meant by a **special purpose computer**? Give two (02) application examples of special purpose computers. (04 mark)
- VI. Explain the following computer terms in brief.
  - a. Recycle bin (03 mark)
  - b. Shortcut (03 mark)

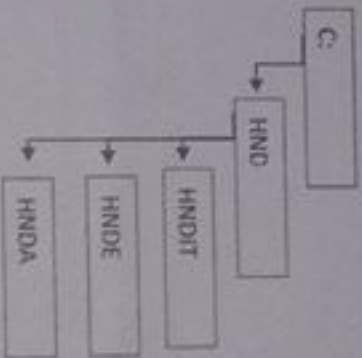
**Q2)**

- I. Briefly describe the CPU and its operations. (4 marks)
- II. Draw the block diagram of a CPU. (Hint: Your diagram should show the connection between every component). (06 marks)
- III. Explain the operation performed by following components.
  - a. Instruction Register (02 marks)
  - b. Program counter (02 marks)

- c. ALU (02 marks)
- d. Control Unit (02 marks)
- IV. What is the purpose of registers and the cache memory in the CPU? (04 marks)
- V. What is the difference between SATA and IDE technologies? (03 marks)

Q3)

- I. What is meant by "Computer File"? (3 marks)
- II. Discuss features of a Folder (3 marks)
- III. Explain how to create the following folders on the hard disk. (3 marks)



- IV. Give four important functions of BIOS. Explain how to enter into BIOS setup. (6 marks)
- V. Describe important roles of the Operating System. (5 marks)
- VI. Specify minimum hardware requirement for MS Windows 7. (5 marks)

Q4)

- I. What are the three (3) main characteristics of Random Access Memory? (03 marks)
- II. Differentiate SRAM and DRAM. (04 marks)
- III. What are the features of the touch screen? (03 marks)
- IV. What are the four (4) touch screen technologies available? (04 marks)
- V. Compare and contrast CRT and LCD monitors. (06 marks)
- VI. Differentiate North Bridge and South Bridge. (05 marks)

Q5

- I. Name two types of printers and give an example for each. (04 marks)
- II. Fill in the blanks of the following table. (06 marks)

Disk Name	Expanded Name	Capacity
CD	--(a)--	--(b)--
DVD	--(c)--	--(d)--
BD	--(e)--	--(f)--

- III. Describe the followings:
- a. Potter (03 marks)
  - b. Optical Disc (03 marks)
  - c. Magnetic Tape (03 marks)
- IV. Draw the structure of a hard disk and identify the following components. (06 marks)
- a. Track
  - b. Sector
  - c. Block
  - d. Cylinder
  - e. Disk Head
  - f. Platter